

**Work Order ID 85750**

June-14-12 1:58:35 PM

**\*85750\***

Page 1

Item ID: D4149-3

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Spacer

Stop **\*NS2\***

Start Date: 14/06/2012 Start Qty: 30.00

**\*30\***

Cust Item ID:

Required Date: 28/06/2012 Req'd Qty: 30.00

**\*30\***

Customer:

Reference:

Approvals: Process Plan: MLJDate: 12/06/14 Tooling:

Date:

Run Start **\*NR1\***

QC:

Date: SPC (Y/N):

Date:

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D4149

C

100

Cut blanks as per folio

0.00

**\*100\***

Bandsaw

Memo

0.00

Jeaspa Bandsaw

4.00" LONG

B.A 12/07/01

30  $\phi$ 

110

0.00

**\*110\***

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

MACHINE AS PER FOLI FA942 AND DWG

FOLIO REV: AADWG REV: C

DEBURR

B.A 12/07/05

30  $\phi$

# Work Order ID 85750

June-14-12 1:58:35 PM

**\*85750\***

Page 2

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**\*N900040100\***

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                         | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 120                            | QC2- Inspect parts off machine FAI/FAIB          | 0.00                 |         |        |              |               |               |                  |                |
| <b>*120*</b>                   |                                                  |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                             | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                                  |                      |         |        |              |               |               |                  |                |
|                                |                                                  |                      |         |        |              |               |               |                  |                |
| 130                            | QC8- Inspect parts - second check                | 0.00                 |         |        |              |               |               |                  |                |
| <b>*130*</b>                   |                                                  |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                             | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                                  |                      |         |        |              |               |               |                  |                |
|                                |                                                  |                      |         |        |              |               |               |                  |                |
| 170                            | Identify as per dwg & Stock Location: <u>102</u> | 0.00                 |         |        |              |               |               |                  |                |
| <b>*170*</b>                   |                                                  |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo                                             | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      |                                                  |                      |         |        |              |               |               |                  |                |

B.A 12/07/05

30 0

B.A 12/07/06

30 0

30 12/7/10 SP

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|                                                              |                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------|--------------------------------------------|--------------------------------------|------------------------------------|------------------------------------|----------------------------------------------|----------------------------------|----------------------------------------|------------------------------------|-----------------------------------|--|------------------------------------|------------------------------------|--------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Work Order Update <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/>   | Crosstube <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Supplier <input type="checkbox"/> |  | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Other <input type="checkbox"/> |  |
| Skid-tube <input type="checkbox"/>                           | Crosstube <input type="checkbox"/>                                                                                                                                              | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Engineering <input type="checkbox"/> |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |
| Machining <input type="checkbox"/>                           | Small Fab <input type="checkbox"/>                                                                                                                                              | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quality <input type="checkbox"/>     |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |
| Thermoforming <input type="checkbox"/>                       | Finishing <input type="checkbox"/>                                                                                                                                              | Supplier <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |
| Large Fab <input type="checkbox"/>                           | Composite <input type="checkbox"/>                                                                                                                                              | Other <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |

| Root Cause                             | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|----------------------------------------|------|------|-----|-----------------------------------------------------|-------------------|--------------------|-------------|--------------|--------------|
| Doc/Data <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Equip/Tooling <input type="checkbox"/> |      |      |     |                                                     |                   |                    |             |              |              |
| Operator <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Material <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Offset/Setup <input type="checkbox"/>  |      |      |     |                                                     |                   |                    |             |              |              |
| Other <input type="checkbox"/>         |      |      |     |                                                     |                   |                    |             |              |              |
| Process <input type="checkbox"/>       |      |      |     |                                                     |                   |                    |             |              |              |
| Supplier <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Training <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Unauthorized <input type="checkbox"/>  |      |      |     |                                                     |                   |                    |             |              |              |

**FAULT CATEGORY**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Landing Gear</b><br><input type="checkbox"/> Bending Passes Below Min<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimp at Bending<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Other<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Ripples on Inner Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube | <b>Hardware</b><br><input type="checkbox"/> Breaking<br><input type="checkbox"/> Missing<br><input type="checkbox"/> Size/Length<br><input type="checkbox"/> Spinning<br><input type="checkbox"/> Threading<br><input type="checkbox"/> Wrong<br><br><b>Drill Holes</b><br><input type="checkbox"/> Misaligned<br><input type="checkbox"/> Ovalized<br><input type="checkbox"/> Over/Undersized<br><input type="checkbox"/> Too Many | <b>General</b><br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Documentation/Data<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Inspection Unqualified<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Jigs/Fixtures/Tooling<br><input type="checkbox"/> Kit Incorrect<br><input type="checkbox"/> Kit Missing<br><br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Off-Set<br><input type="checkbox"/> Orientation Misread<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Lost<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Raw Material |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                             |
|---------------------------------------------|
| <input type="checkbox"/> Set-up             |
| <input type="checkbox"/> Supplier           |
| <input type="checkbox"/> Temperature/Cure   |
| <input type="checkbox"/> Weld               |
| <input type="checkbox"/> Wrong Stock Pulled |
| <input type="checkbox"/> Other              |

**Work Order ID 85750**

June-14-12 1:58:35 PM

**\*85750\***

Page 3

Item ID: D4149-3

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Spacer

Start Date: 14/06/2012 Start Qty: 30.00

**\*30\***

Cust Item ID:

Required Date: 28/06/2012 Req'd Qty: 30.00

**\*30\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

QC21- Final Inspection - Work Order Release

0.00

**\*180\***

QC

Memo

0.00

Quality Control

OK 12/7/10  
MF  
12-07-10

# Picklist Print

June-14-12 1:58:39 PM

Page 1

Work Order ID: 85750

\*85750\*

Parent Item: D4149-3

\*D4149-3\*

Parent Item Name: Spacer

Start Date: 14/06/2012

Required Date: 28/06/2012

Start Qty: 30.00

Required Qty: 30.00

Comments: IPP REV:A NEW ISSUE 10-06-24 JLM VERIFIED BY:DD IPP  
Rev:B 11.03.03 as per revC DD verf:JLM

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M303B1.000X1.000                |                        | Purchased     | No          |                     |                  | 100             | f                  | 8.0395         | 0.33333333  | 10.52631     |               |                |        |

\*M303B1 000X1 000\*

303 BAR 1" X 1"

\*\*

12/07/01

Location

Loc Qty

Loc Code

MAT050

8.039526

120602

8.039526

→ 122217

10.5263

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|                                                              |                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |
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| Skid-tube <input type="checkbox"/>                           | Crosstube <input type="checkbox"/>                                                                                                                                              | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Engineering <input type="checkbox"/> |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |
| Machining <input type="checkbox"/>                           | Small Fab <input type="checkbox"/>                                                                                                                                              | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quality <input type="checkbox"/>     |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |
| Thermoforming <input type="checkbox"/>                       | Finishing <input type="checkbox"/>                                                                                                                                              | Supplier <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |
| Large Fab <input type="checkbox"/>                           | Composite <input type="checkbox"/>                                                                                                                                              | Other <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |                                    |                                            |                                      |                                    |                                    |                                              |                                  |                                        |                                    |                                   |  |                                    |                                    |                                |  |

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| Equip/Tooling <input type="checkbox"/> |      |      |     |                                                     |                   |                    |             |              |              |
| Operator <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Material <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Offset/Setup <input type="checkbox"/>  |      |      |     |                                                     |                   |                    |             |              |              |
| Other <input type="checkbox"/>         |      |      |     |                                                     |                   |                    |             |              |              |
| Process <input type="checkbox"/>       |      |      |     |                                                     |                   |                    |             |              |              |
| Supplier <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Training <input type="checkbox"/>      |      |      |     |                                                     |                   |                    |             |              |              |
| Unauthorized <input type="checkbox"/>  |      |      |     |                                                     |                   |                    |             |              |              |

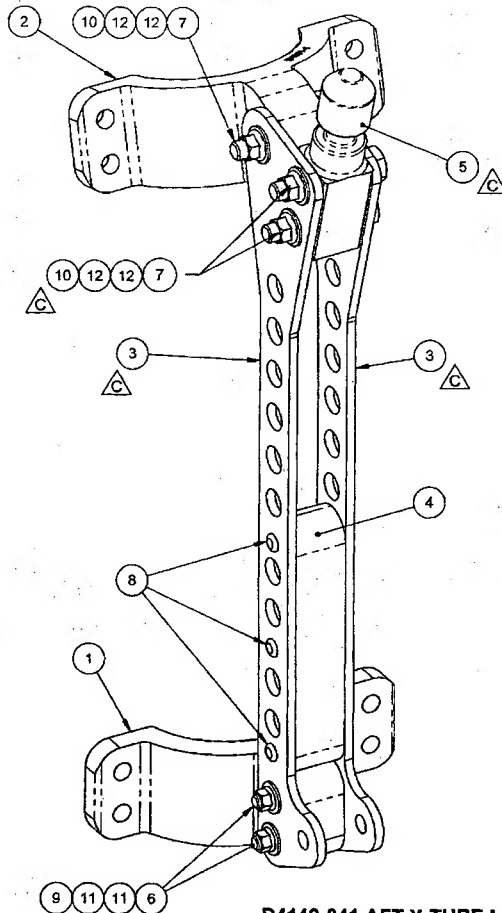
### FAULT CATEGORY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

☐ Set-up  
☐ Supplier  
☐ Temperature/Cure  
☐ Weld  
☐ Wrong Stock Pulled

☐ Other  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_





**D4149-041 AFT X-TUBE LUG ASSY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4149-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 2.21 lbs

| ITEM | QTY<br>-041 | P/N           | DESCRIPTION          |
|------|-------------|---------------|----------------------|
|      | X           | D4149-041     | AFT X-TUBE LUG ASSY  |
| 1    | 1           | D3910-1       | X-TUBE LUG           |
| 2    | 1           | D4091-1       | MOUNTING LUG         |
| 3    | 2           | D4149-1       | AFT X-TUBE LUG PLATE |
| 4    | 1           | D4149-3       | SPACER               |
| 5    | 1           | D4149-5       | EYEBOLT STUD         |
| 6    | 2           | AN3C12A       | BOLT                 |
| 7    | 3           | AN4C13A       | BOLT                 |
| 8    | 3           | MS20815-4M18  | RIVET                |
| 9    | 2           | MS21043C3     | NUT                  |
| 10   | 3           | MS21043C4     | NUT                  |
| 11   | 4           | NAS1149C0332R | WASHER               |
| 12   | 6           | NAS1149C0432R | WASHER               |

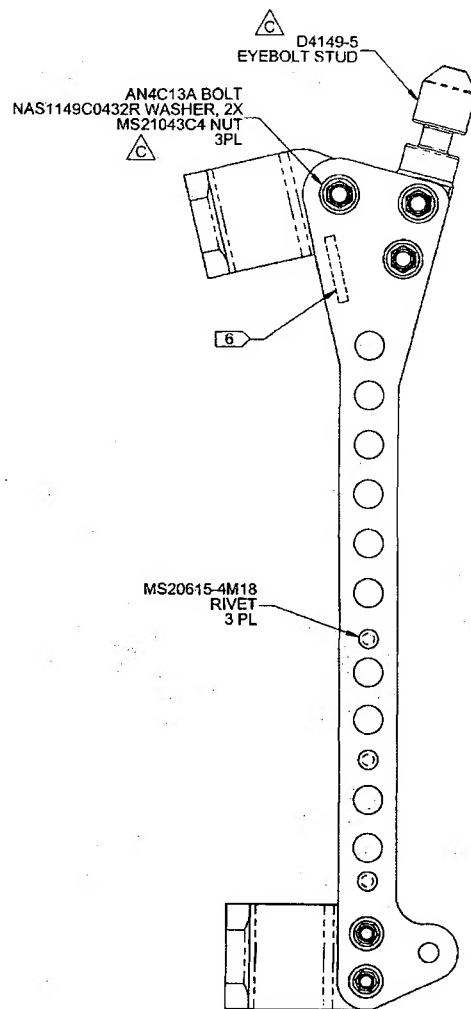
SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

NO. 85750 MLJ  
12/06/14

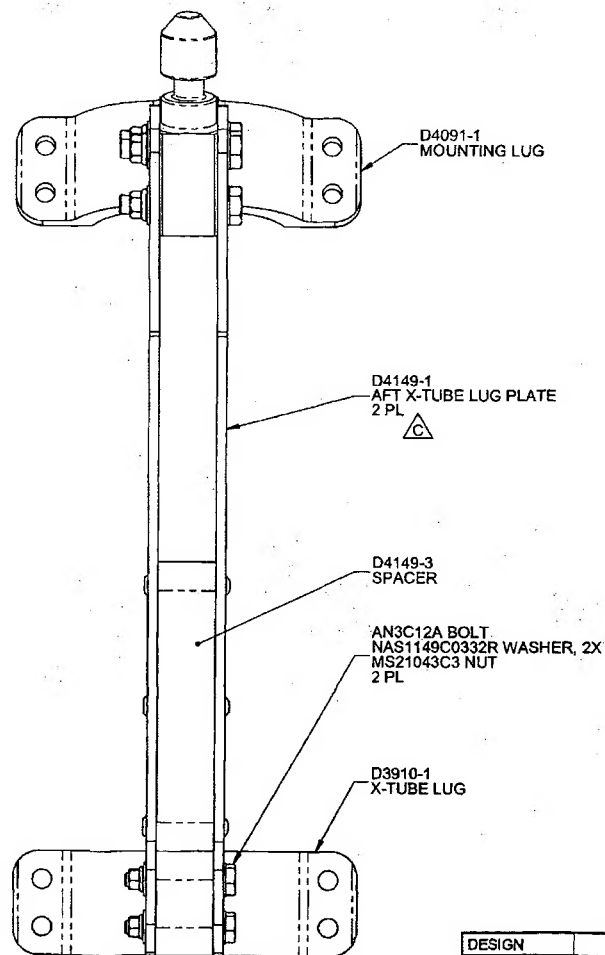
RELEASED  
2011-02-20  
WJ

|            |                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                               |              |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| C          | HOLE DIA CHANGED TO 0.252" (D8-3); HOLE DIA CHANGED TO 0.250" (C8-5); REPLACED QTY(2) AN3C12A, MS21043C3 AND QTY(4) NAS1149C0332R WITH QTY(2) AN4C13A, MS21043C4 AND QTY(4) NAS1149C0432R (D3-1, D7-2)                                                                                                                    | SC                                                                                                                                                                                                                            | 11.02.22     |
| B          | MS20815-4M18 WAS MS20815-4M20 (ZN D3-1 & B7-2); ADDED D4149-5 (SHT 5); D4149-5 WAS D3909-5 (ZN D3-1 & D7-2); REPLACED QTY(3) MS20815-4M18 WITH QTY(2) EACH AN3C12A, MS21043-3 AND QTY(4) NAS1149C0332R WASHER (ZN D3-1, C7-1, B7-2 & B3-2); Ø0.191 2 PL REPLACES Ø0.129 3 PL (ZN D8-3); REASON: SEE TR-D350-607-2 REV. B. | MB                                                                                                                                                                                                                            | 10.07.05     |
| A          | NEW ISSUE                                                                                                                                                                                                                                                                                                                 | MB                                                                                                                                                                                                                            | 10.06.18     |
| REV.       | DESCRIPTION                                                                                                                                                                                                                                                                                                               | BY                                                                                                                                                                                                                            | DATE         |
| DESIGN     | MB                                                                                                                                                                                                                                                                                                                        | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                             |              |
| DRAWN      | SC                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                               |              |
| CHECKED    |                                                                                                                                                                                                                                                                                                                           | DRAWING NO.                                                                                                                                                                                                                   | REV. C       |
| MFG. APPR. |                                                                                                                                                                                                                                                                                                                           | D4149                                                                                                                                                                                                                         | SHEET 1 OF 5 |
| APPROVED   |                                                                                                                                                                                                                                                                                                                           | TITLE                                                                                                                                                                                                                         | SCALE        |
| DE APPR.   |                                                                                                                                                                                                                                                                                                                           | AFT X-TUBE LUG ASSY                                                                                                                                                                                                           | NTS          |
| DATE       | 11.02.22                                                                                                                                                                                                                                                                                                                  | COPYRIGHT © 2010 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |





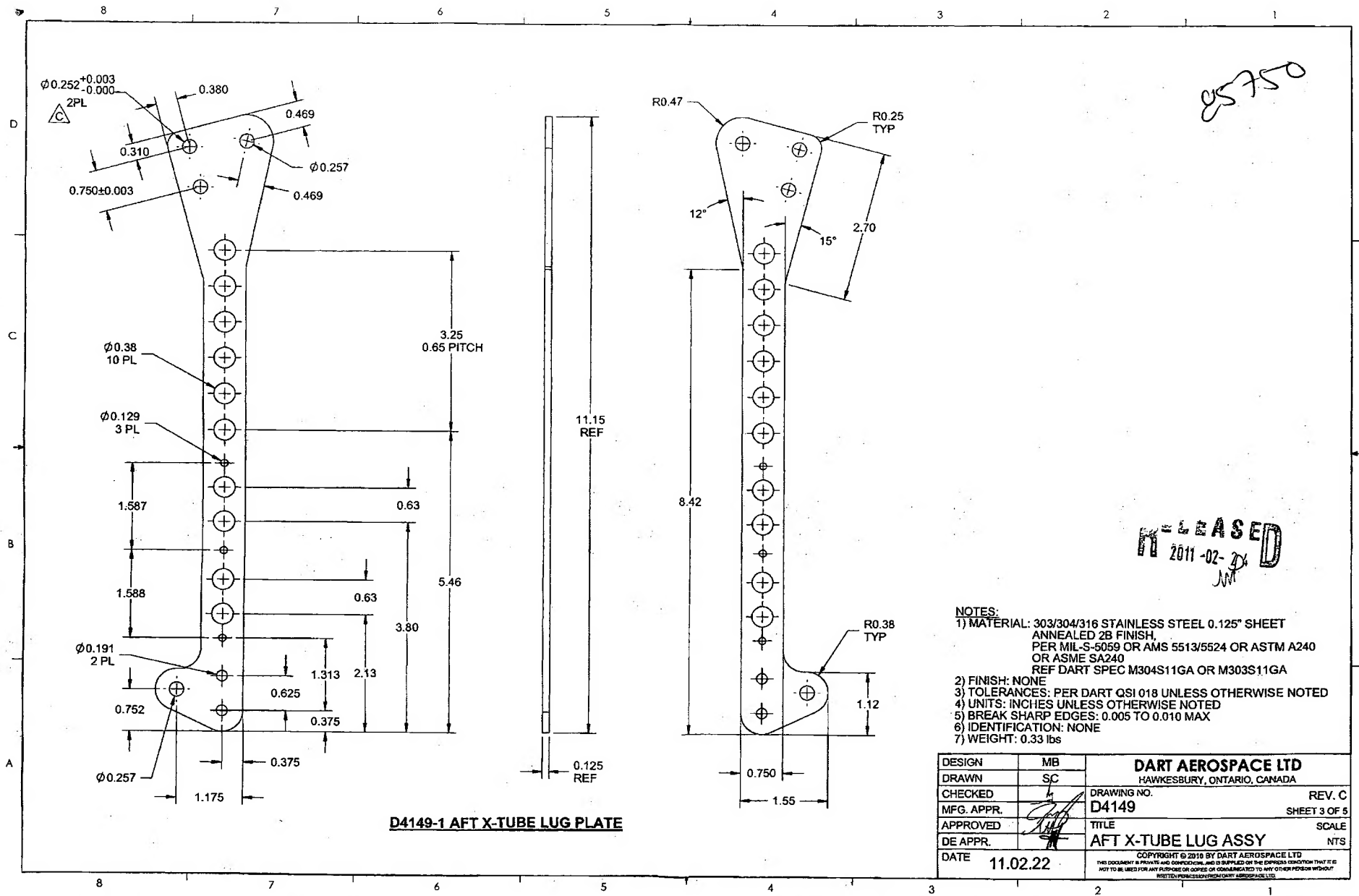
**D4149-041 AFT X-TUBE LUG ASSY**



25750

RELEASED  
2011-02-24

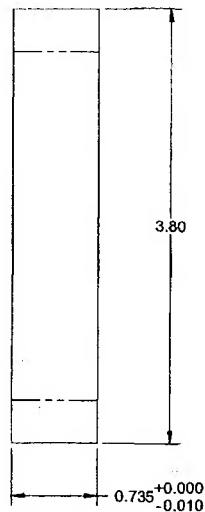
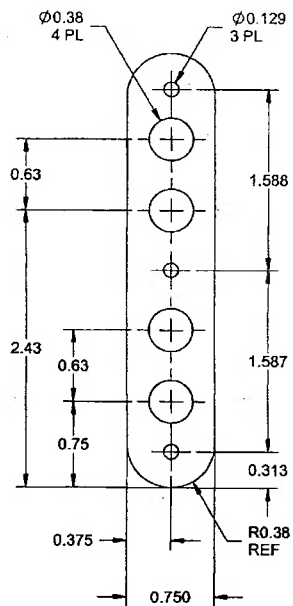
|            |          |                                                                                                                                                                                                                                                                                 |              |
|------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | MB       | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                        |              |
| DRAWN      | SC       |                                                                                                                                                                                                                                                                                 |              |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                                     | REV. C       |
| MFG. APPR. |          | <b>D4149</b>                                                                                                                                                                                                                                                                    | SHEET 2 OF 5 |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                                           | SCALE        |
| DE APPR.   |          | <b>AFT X-TUBE LUG ASSY</b>                                                                                                                                                                                                                                                      | NTS          |
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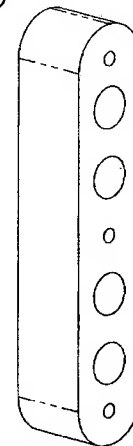
**D4149-1 AFT X-TUBE LUG PLATE**

- NOTES:
- 1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET  
ANNEALED 2B FINISH,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240  
OR ASME SA240  
REF DART SPEC M304S11GA OR M303S11GA
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.33 lbs

|            |          |                                                                                                                                                                                                                                                                               |        |
|------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| DESIGN     | MB       | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                             |        |
| DRAWN      | SC       |                                                                                                                                                                                                                                                                               |        |
| CHECKED    |          | DRAWING NO.<br>D4149                                                                                                                                                                                                                                                          | REV. C |
| MFG. APPR. |          | TITLE                                                                                                                                                                                                                                                                         | SCALE  |
| APPROVED   |          | AFT X-TUBE LUG ASSY                                                                                                                                                                                                                                                           | NTS    |
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| DATE       | 11.02.22 |                                                                                                                                                                                                                                                                               |        |





**D4149-3 SPACER**

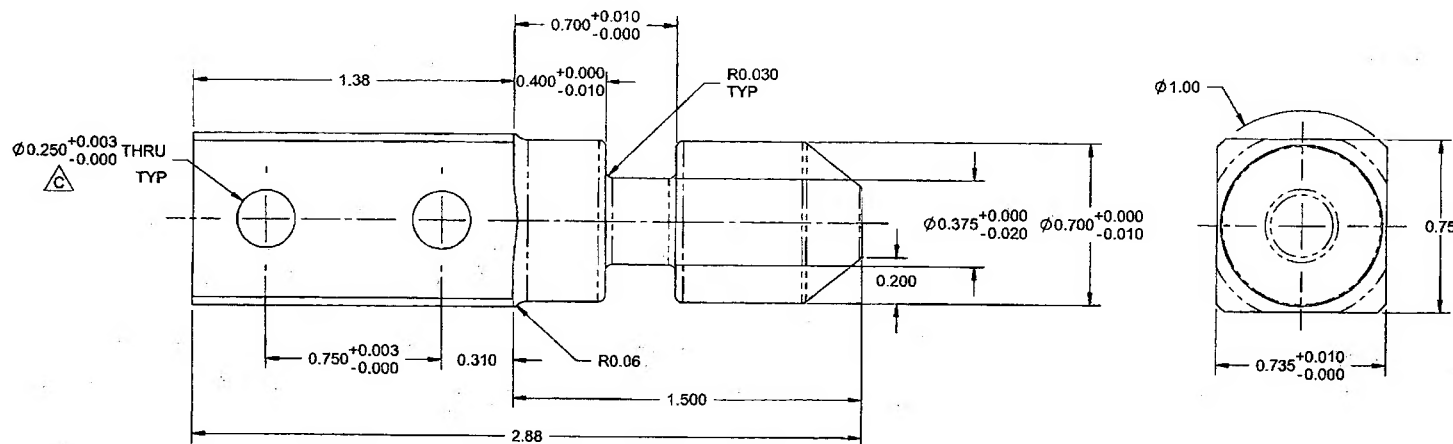


**RELEASED**  
 2011-02-24

**NOTES:**

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A276 OR A582  
REF DART SPEC MS304B OR MS303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.47 lbs

|                                                                                                                                                                                                                           |                                                                                       |                                        |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                    | MB                                                                                    | <b>DART AEROSPACE LTD</b>              |              |
| DRAWN                                                                                                                                                                                                                     | SC                                                                                    | HAWKESBURY, ONTARIO, CANADA            |              |
| CHECKED                                                                                                                                                                                                                   |                                                                                       | DRAWING NO.                            | REV. C       |
| MFG. APPR.                                                                                                                                                                                                                |  | <b>D4149</b>                           | SHEET 4 OF 5 |
| APPROVED                                                                                                                                                                                                                  |                                                                                       | TITLE                                  | SCALE        |
| DE APPR.                                                                                                                                                                                                                  |  | <b>AFT X-TUBE LUG ASSY</b>             | NTS          |
| DATE                                                                                                                                                                                                                      | 11.02.22                                                                              | COPYRIGHT © 2010 BY DART AEROSPACE LTD |              |
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**D4149-5 EYEBOLT STUD**

**NOTES:**

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A276 OR A582  
REF DART SPEC MS304B OR MS303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4149-5" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.32 lbs

|                                                                                                                                                                                                                                |          |                                        |              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                         | MB       | <b>DART AEROSPACE LTD</b>              |              |
| DRAWN                                                                                                                                                                                                                          | SC       | HAWKESBURY, ONTARIO, CANADA            |              |
| CHECKED                                                                                                                                                                                                                        |          | DRAWING NO.                            | REV. C       |
| MFG. APPR.                                                                                                                                                                                                                     |          | <b>D4149</b>                           | SHEET 5 OF 5 |
| APPROVED                                                                                                                                                                                                                       |          | TITLE                                  | SCALE        |
| DE APPR.                                                                                                                                                                                                                       |          | <b>AFT X-TUBE LUG ASSY</b>             | NTS          |
| DATE                                                                                                                                                                                                                           | 11.02.22 | COPYRIGHT © 2010 BY DART AEROSPACE LTD |              |
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